fine collection of Australian woods at the Imperial Institute, and can vouch for their accuracy as regards both colour and delineation. Every timber has a distinct colour, though at times this is far from easy to describe in the absence of any standard colour nomenclature; in such cases coloured plates are a great help. Some of the colour terms seem to be used in a rather loose sense. The author employs eight types—(1) dark red, (2) red, (3) pink, (4) grey, (5) chocolate, (6) yellow, (7) pale, (8) white—but on comparing some of the plates we find it hard to draw the line between the types pink and pale, while some of the timbers described under the heading of white would be more correctly termed buff-coloured. The illustrations in black-and-white showing wood anatomy should also be a material aid to identification.

In part ii. we have a description of each species in botanical sequence, followed by a list of timbers arranged in grades of hardness. Part iii. contains technical articles on (i) the determination of specific timbers; (ii) nomenclature; (iii) the seasoning of timber; (iv) the preservation of timbers, concluding with an account of the economic uses of the woods. The book contains a vast amount of information useful to both foresters and students.

The typographical arrangement is somewhat open to criticism. The use of unnecessarily large types for specific names and authorities, with a wide margin, entails a great waste of space, and makes the book rather cumbersome. On the other hand, the systematic portion of the work might with advantage have been in larger type. These minor defects, however, do not detract from the general excellence of the book.

Mr. Baker is to be congratulated upon a valuable addition to the literature of Australian forestry, which should bring home to Australians the importance of preserving these many valuable woods from the extinction which threatens them by a well-devised and vigorous scheme of re-afforestation.

A. B. J.

The Columbian Tradition.

The Columbian Tradition on the Discovery of America and of the Part Played therein by the Astronomer Toscanelli: A Memoir addressed to the Profs. Hermann Wagner, of the University of Göttingen, and Carlo Errera, of Bologna. By Henry Vignaud. Pp. 62. (Oxford: At the Clarendon Press, 1920.) Price 3*s.* 6*d.* net.

IN various publications, especially in his "Histoire de la Grande Entreprise de Christophe Colomb" (Paris, 1911, 2 vols.), Mr. Vignaud has endeavoured to upset the traditional view of the discovery of America. According to that view, Columbus set out in 1492, not to discover unknown lands, but to reach the eastern parts of Asia by sailing westward across the Atlantic, having already in 1474 been encouraged to do so by the well-known astronomer Toscanelli of Florence. In this pamphlet Mr. Vignaud has again summed up the results of his studies and defended them against the attacks of his two principal opponents.

All we know about Columbus and the object of his first voyage comes from himself or his son or his blind admirer, Las Casas, and not one of these is a trustworthy witness, as the exposure of various falsehoods told about the family and early history of Columbus has proved. No trace exists of Columbus ever having spoken of going to Eastern Asia before he returned from his great discovery; but that idea is spoken of in a letter to the "Catholic Kings," which Las Casas placed as a preface to the log-book of the first voyage. This letter is, however, neither found nor alluded to elsewhere, and bears no date. In the log-book Columbus says that his sole object is *las Indias,* but that book was edited by Las Casas, and in the days when he wrote, this expression only meant the Antilles and neighbouring lands, and never the East Indies. Columbus, when leaving Palos, did not sail straight across the Atlantic, as would have been natural if his goal had been "Cipangu" (Japan), or "Cathay" (China); he first went down to the Canaries and then sailed straight westward along the 28th parallel. At 700 or 750 leagues west of the Canaries he fully expected to find land, and was greatly disturbed when none was seen, so that he must have had some private reason to believe that there were islands near that spot; and the discovery of these would seem to have been the sole object of the voyage. It has been objected to this that Columbus (according to Las Casas) carried with him credential letters for the "Great Khan." But it is known that his partner, Pinzon, had some idea of going in search of Cipangu. Mr. Vignaud suggests that it was to secure the indispensable co-operation of Pinzon that Columbus included the visit to Cipangu in his plan, but that when he only found land much further west than he had expected, he believed that what he had found was Cipangu, a belief which he kept to his dying day.

With regard to the alleged letter and map of 1474, attributed to Toscanelli, these were never alluded to by Columbus himself; and the copy of the letter found at Seville in 1871 was probably not written by him, but by his brother. The information in the letter (the map is lost) is such

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as a distinguished *savant* would have scorned to supply, while it is quite in accordance with Columbus's own geographical ideas derived from the antiquated "Imago Mundi" of Cardinal d'Ailly. The letter was probably fabricated by the family of Columbus after his death to disprove the rumour that he owed his success, not to his studies in cosmography, but to some information about unknown islands privately obtained. The true glory of Columbus is that he found what he went out to find—a New World. J. L. E. D.

Our Bookshelf.

Electricity: Its Production and Applications. By Reg. E. Neale. (Pitman's Common Commodities and Industries.) Pp. viii+136. (London: Sir Isaac Pitman and Sons, Ltd., n.d.) Price 2*s.* 6*d.* net.

THE author addresses himself to the general reader who desires to understand something of the way in which electricity is produced and is utilised in present-day industries. The generation, distribution, and storage of electric power are first explained briefly, and then the author passes on to deal successively with lighting, heating, electric driving of machinery, traction, haulage, etc. Further chapters skim lightly over the leading features of electrochemistry, electrometallurgy, electric welding and cutting, telegraphy and telephony, and medical applications. So large a field can be covered in a little volume like this only by limitation to the barest essentials, but it is remarkable how complete and accurate is the information given. The reader is, however, hurried on unpleasantly fast, and is never allowed to pause where his interest is aroused. We are not as a rule over-fond of "tabloid" education, but the ubiquitous use of electricity in industry and daily life makes it desirable for everyone to know something of its nature and scope. It will be an advantage to many to have at their disposal so well compiled a summary of the subject rather than to rely on the loose statements too often made in conversation and in the non-technical Press.

The Nature-study of Plants in Theory and Practice for the Hobby-Botanist. By T. A. Dymes. Pp. xviii+173. (London: S.P.C.K.; New York: The Macmillan Co., 1920.) Price 6*s.* net.

THE first part of this book is devoted to an explanation of the meaning of the phenomena of plant life and its interdependent functions. Wherever possible, comparisons are drawn with human life, and, in consequence, chapters are given curious titles, such as "Marriage" and "Settling Down for Life." The second portion of the book is a detailed account of the life-history of the Herb Robert and its relatives. Tables are appended showing the separation of the sexes in time, the mode of pollination, and the method of seed dispersal of British species of Cranesbills and Storksbills. The book should be a stimulus to intelligent and intensive Nature-study.

Eugenics, Civics, and Ethics: A Lecture delivered to the Summer School of Eugenics, Civics, and Ethics on August 8, 1919, *in the Arts School, Cambridge.* By Sir Charles Walston (Waldstein). Pp. 56. (Cambridge: At the University Press, 1920.) Price 4*s.* net.

A STRONG plea is made in this lecture for the organisation and development of the study of ethics, or, as the author prefers to call it, ethology. The interdependence of eugenics and civics, and the foundation of both in ethics, are discussed, and warning is given against striving to produce the perfect physical specimen of man without due consideration of character and mental attributes. Towards the end of the lecture the progressive nature of ethical codes is made clear, and great stress is laid on the importance of the establishment of our ideal of the perfect man and the teaching of such practical ethics in both schools and homes.

A Second Book of School Celebrations. By Dr. F. H. Hayward. Pp. 133. (London: P. S. King and Son, Ltd., 1920.) Price 5*s.* net.

"A FIRST BOOK OF SCHOOL CELEBRATIONS" was reviewed in NATURE for August 5. The new volume contains a further series of celebrations dealing with the military conflicts in Palestine, toleration, Alfred the Great, Pasteur and Lister, Sir Philip Sidney, G. F. Watts, Empire Day, political parties, school leaving day, work, and five of a new type, termed by the author "homage celebrations," which deal with the artist, the martyr, the musician, Ireland, and Poland.

Stories for the Nature Hour. Compiled by Ada M. Skinner and Eleanor L. Skinner. Pp. 253. (London: George G. Harrap and Co., Ltd., 1920.) Price 5*s.* net.

A NUMBER of short stories from the pens of many authors have been collected in this volume. Hans Andersen, Ruskin, and Charles Lamb are represented, and the compilers themselves have supplied eight legends. The book should be useful to the teacher giving lessons on natural history subjects to small children, and should also make interesting reading for older children.

A Manual of Elementary Zoology. By L. A. Borradaile. Third edition. Pp. xviii+616+xxi plates. (London: Henry Frowde, and Hodder and Stoughton, 1920.) Price 18*s.*

THE last edition of this work was reviewed in NATURE for April 3, 1919. The only important change made in the new edition is the inclusion of twenty-one large plates, most of which are particularly valuable for laboratory work. Plate xii, showing various breeds of British sheep, is crude, and seems unworthy of a place in a book which is otherwise remarkable for its clear diagrams and realistic illustrations.

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